

ABSTRACT

A method of and system for liquefying snow. The system includes a rotor-stator device mounted within a melting reservoir and having a slotted rotor and a slotted stator. Snow and/or ice is deposited in a water bath in the melting reservoir. The rotor rotates at high speed, hurling particles of crystalline snow from the tips of the rotor slots onto the perpendicular faces of the stator, thereby fracturing the crystals and promoting liquefaction. The high mechanical forces generated during operation of the rotor-stator device also contribute a significant amount of heat that is applied directly to the snow. The system also includes ancillary assemblies, such as heat-exchangers and snow-transport means. The system is operable as a stationary unit or a mobile unit.